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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/684,143 10/05/00 BHATIA

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008791 QM02/0913  
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EXAMINER

ATKINSON, C

ART UNIT

PAPER NUMBER

3743  
DATE MAILED:

09/13/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**BEST AVAILABLE COPY**

# Office Action Summary

Application No. 09/684,143

Applicant(s) Bhatia

Examiner R. H. Hinson

Group Art Unit 3743

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☒ Responsive to communication(s) filed on 4/4/01 and 2/21/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☐ Claim(s) 7-12, 17-21 and 27-30 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 7-12, 17-21 and 27-30 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 10/5/2000 is/are objected to by the Examiner.
- ☒ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☒ Notice of References Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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### ***Response to Election***

Applicant's election of the Group I invention and species C as illustrated in Figure 4 in Paper No.'s 4 and 6 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 400. Correction is required.

### ***Specification***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture,

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composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because the originally filed specification fails to disclose the limitations of claims 8-10.

***Claim Rejections - 35 USC § 112***

Claims 8-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification fails to disclose the limitations of claims 8-10.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The recitations “the first thermal conductivity” and “the second thermal conductivity” lack antecedence.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-8, 10 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by

Gunnerson et al.

The patent of Gunnerson et al. in figures 1-3 discloses the claimed invention. Air in duct (46) is the heat generating component; cooling air, fins and cooling coils 27A in condensing duct are the heat dissipating mechanisms and items (40,26) are the limited conductivity portion.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 9, 11, 21, 28 and 30 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. and Villaume. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception the of the heat source being a processor

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and the second heat dissipating mechanism being a plate located beneath a keyboard.

The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device and a heat dissipating plate for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

The patent of Villaume discloses that it is known to have a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of compactly cooling an electronic device in a laptop computer. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a heat pipe cooling device and plate located beneath and parallel to a keyboard for the purpose of compactly cooling an electronic device in a laptop computer as disclosed in Villaume.

Claims 17-20 and 27 are rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. The patent of Gunnerson et al. discloses all the claimed features of the invention with the exception the of the heat source being an electronic device and the fins welded to the heat pipe. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have integral fins, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

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The patent of Hung et al. discloses that it is known to use a heat pipe thermally coupled to an electronic device, and a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. a heat pipe thermally coupled to an electronic device, a heat dissipating plate and fins welded to the heat pipe for the purpose of removing heat from a desired device such as an electronic device as disclosed in Kurusu et al.

Claim 29 is rejected under 35 U.S.C. § 103 as being unpatentable over Gunnerson et al. in view of Hung et al. as applied to claims 17-20 and 27 above, and further in view of Feldman, Jr. et al. The patent of Gunnerson et al. as modified, discloses all the claimed features of the invention with the exception the of the limited portion comprises a narrowed portion.

The patent of Feldman, Jr. et al. discloses that it is known to use a limited portion of a heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Gunnerson et al. as modified, a limited portion of a heat pipe comprised of a narrowed portion for the purpose of controlling the heat flow through the heat pipe as disclosed in Feldman, Jr. et al.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

September 10, 2001

CHRISTOPHER ATKINSON  
PRIMARY EXAMINER



Attachment for PTO-948 (Rev. 03/01, or earlier)  
6/18/01

**The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.**

**INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

**1. Correction of Informalities -- 37 CFR 1.85**

New corrected drawings must be filed with the changes incorporated therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

**2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made other than correction of informalities, unless the examiner has approved the proposed changes.

**Timing of Corrections**

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a)

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.